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FIG. 1A

(PRIOR ART)  
8 POINTS DFT

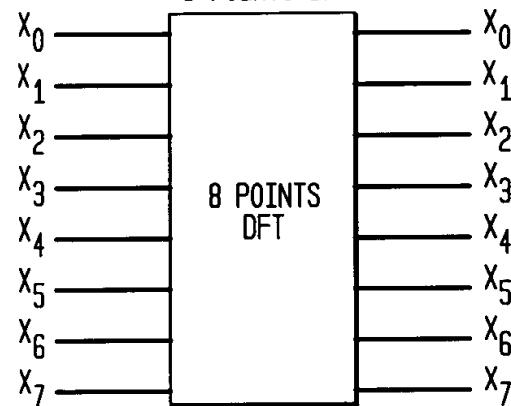


FIG. 1B

(PRIOR ART)

8 POINTS DFT OBTAINED BY COMBINING TWO FOUR POINTS DFT

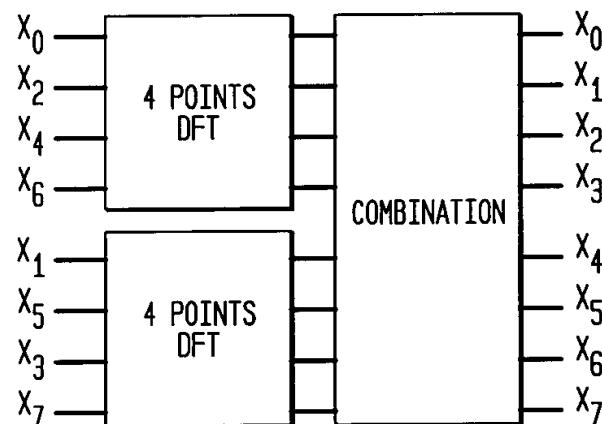
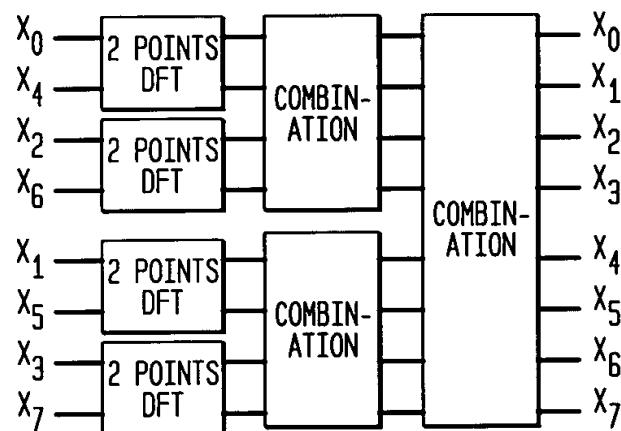


FIG. 1C

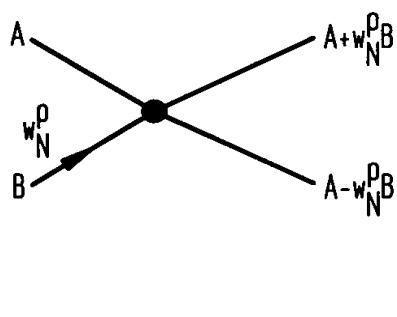
(PRIOR ART)

8 POINTS DFT OBTAINED BY COMBINING FOUR TWO POINTS DFT



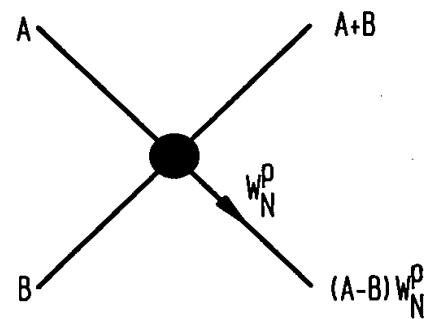
**FIG. 2A1**  
(PRIOR ART)

DIT RADIX-2 BUTTERFLY COMPUTATION



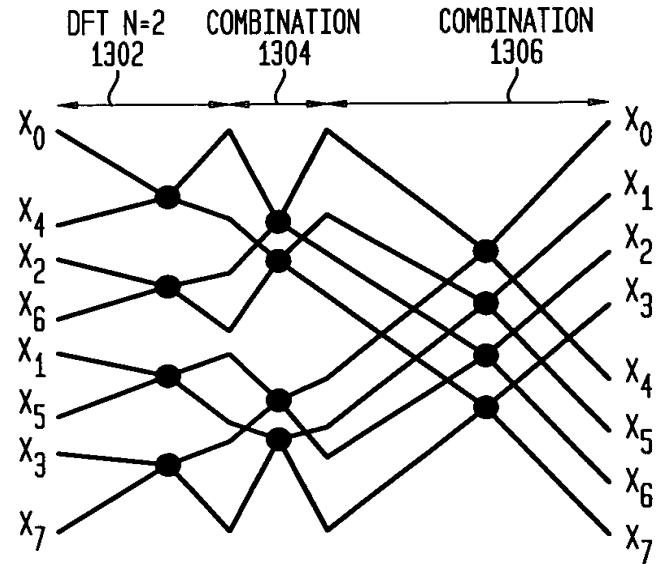
**FIG. 2A2**  
(PRIOR ART)

DIF RADIX-2 BUTTERFLY COMPUTATION



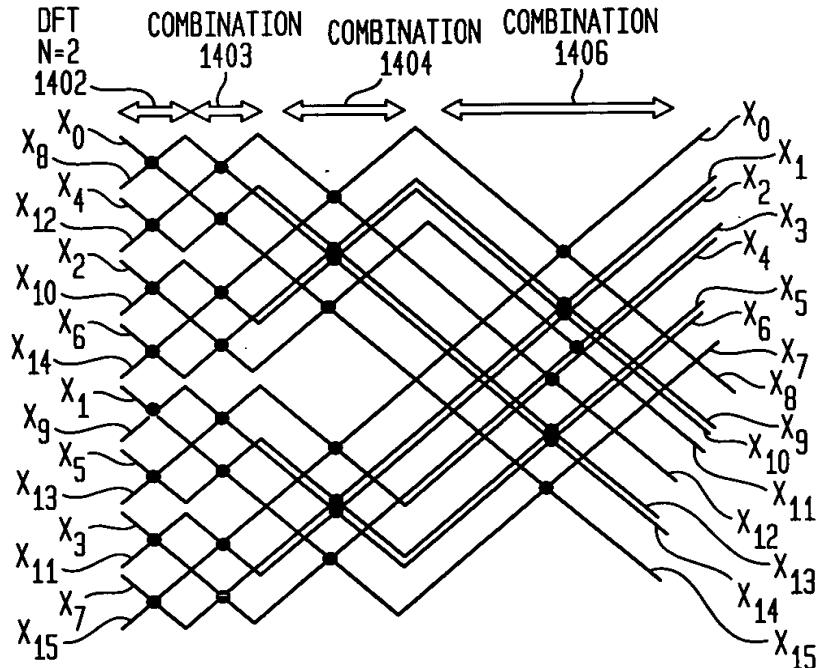
**FIG. 2B**  
(PRIOR ART)

BUTTERFLIES REPRESENTATION OF AN 8 POINTS FFT



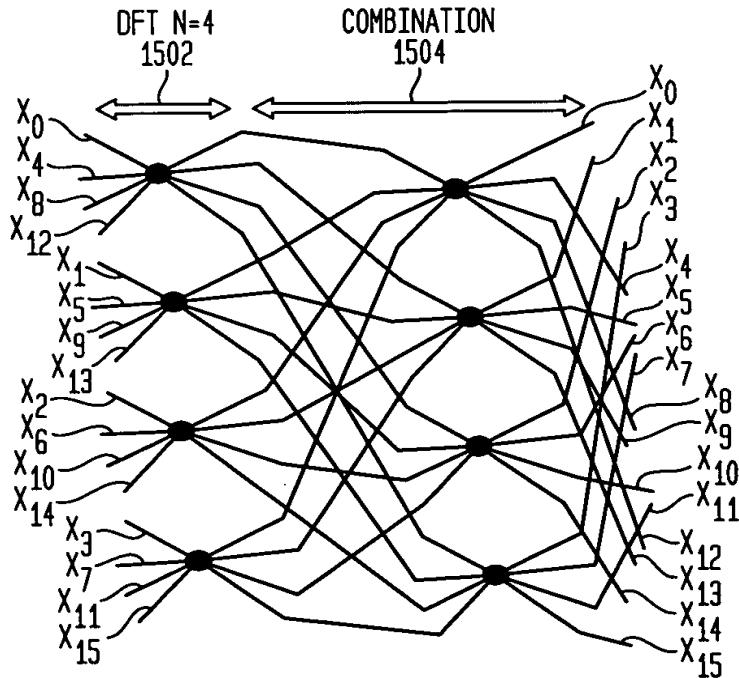
**FIG. 2C**  
(PRIOR ART)

IN PLACE FFT WITH BIT REVERSED INPUTS AND NORMALLY ORDERED OUTPUTS ( $r=2$ )

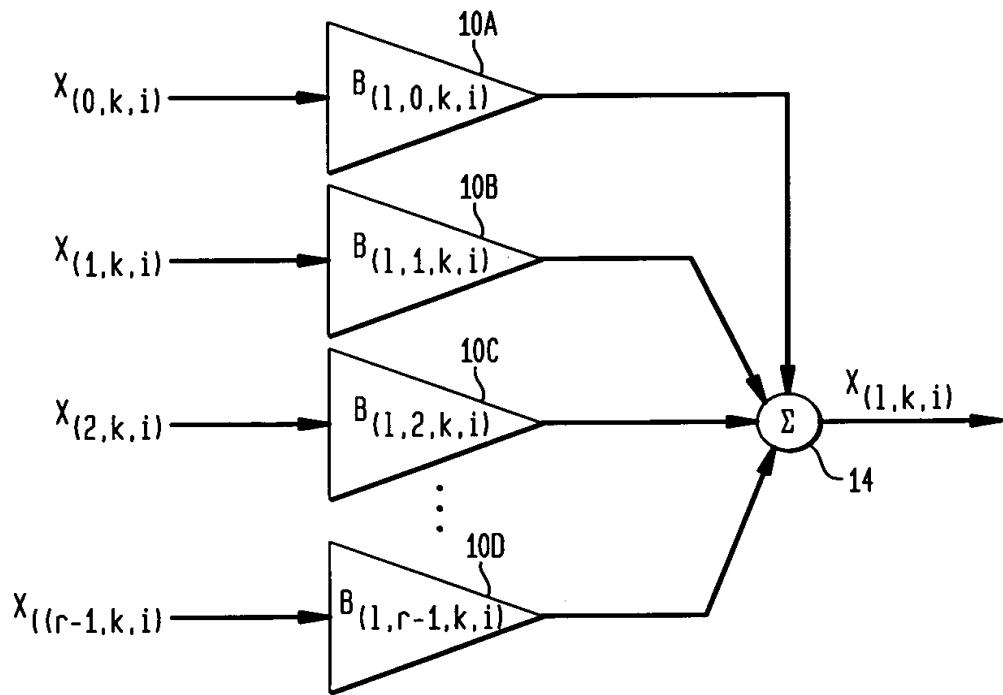


**FIG. 2D**  
(PRIOR ART)

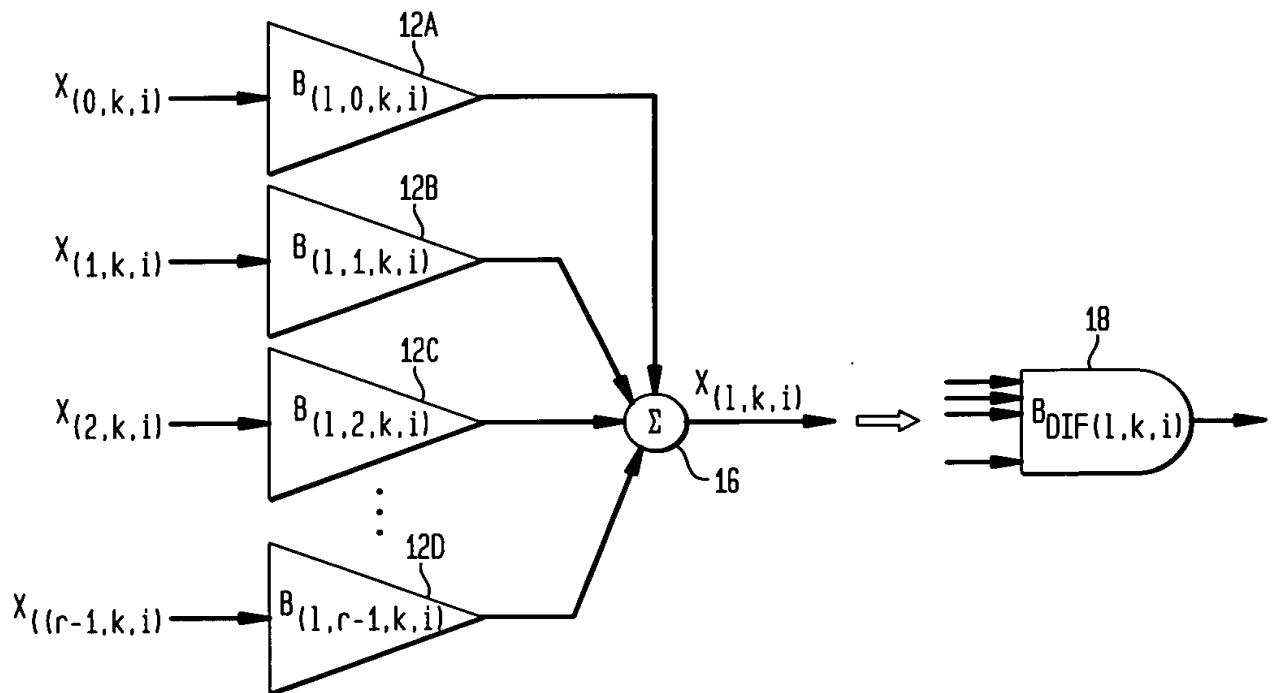
IN PLACE FFT WITH BIT REVERSED INPUTS AND NORMALLY ORDERED OUTPUTS



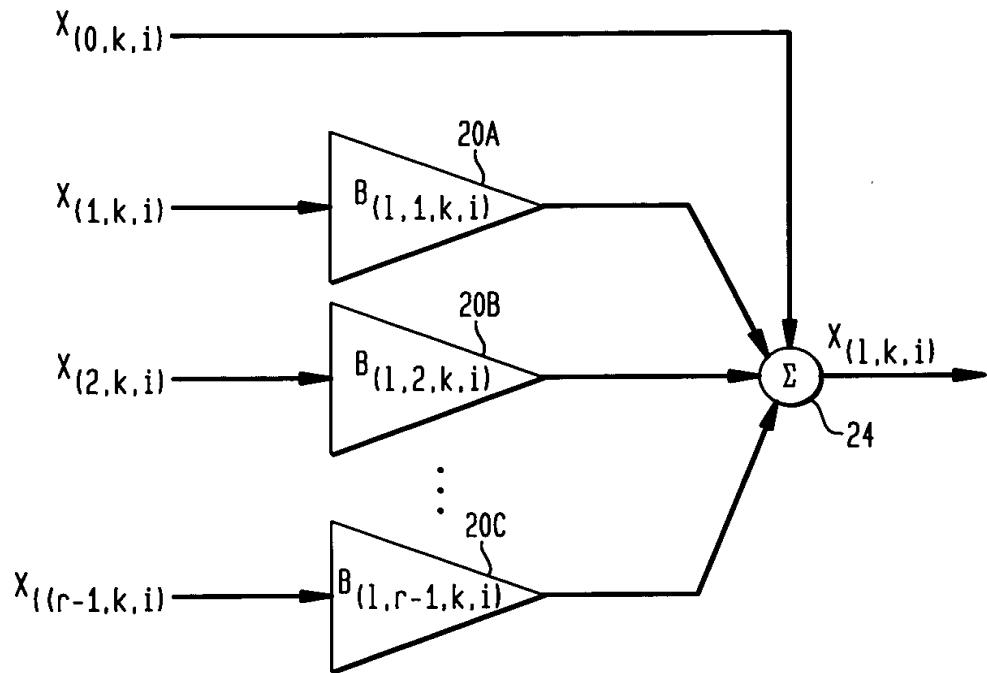
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**FIG. 3A**  
 JABER'S RADIX- $r$  DIF ENGINE



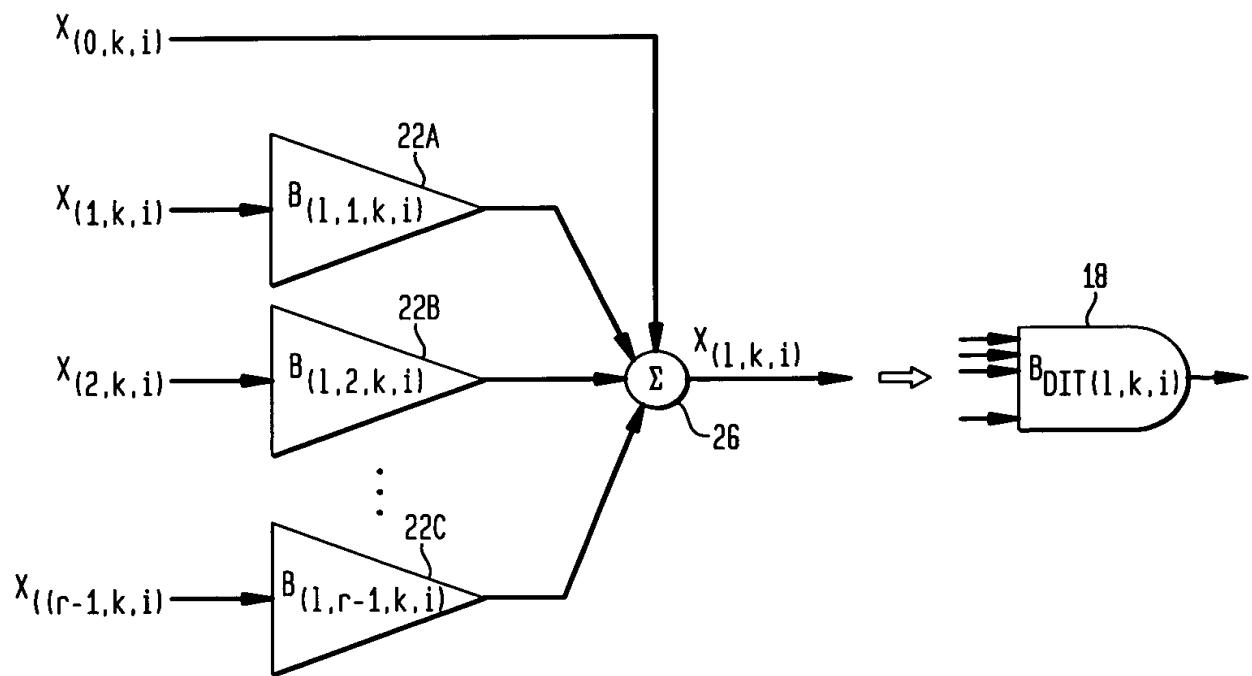
**FIG. 3B**  
 SIMPLIFIED JABER'S RADIX- $r$  DIF ENGINE



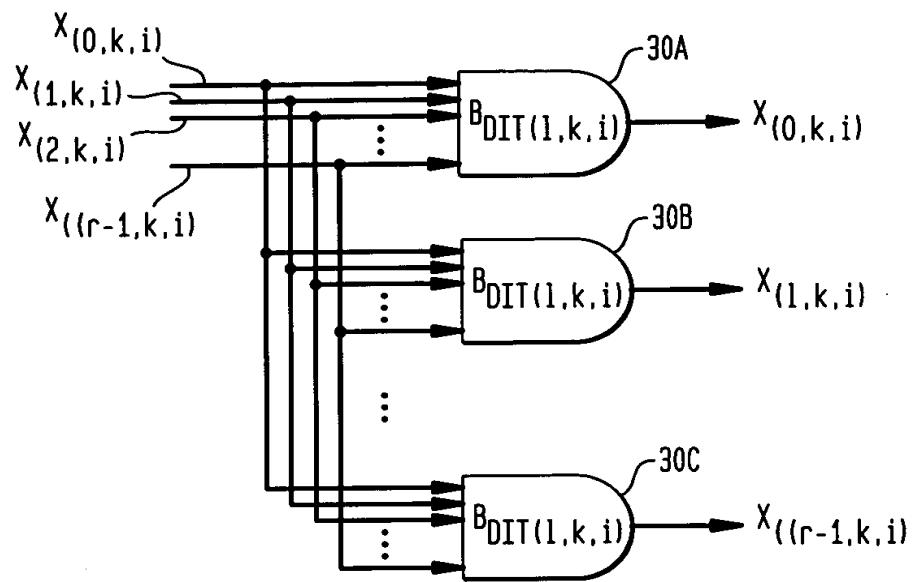
**FIG. 4A**  
JABER'S RADIX- $r$  DIT ENGINE



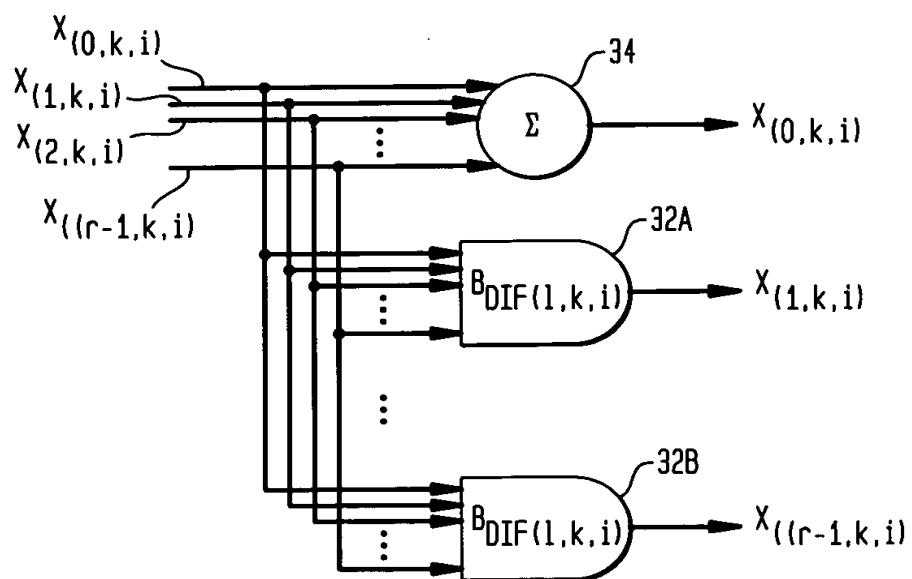
**FIG. 4B**  
SIMPLIFIED JABER'S RADIX- $r$  DIT ENGINE



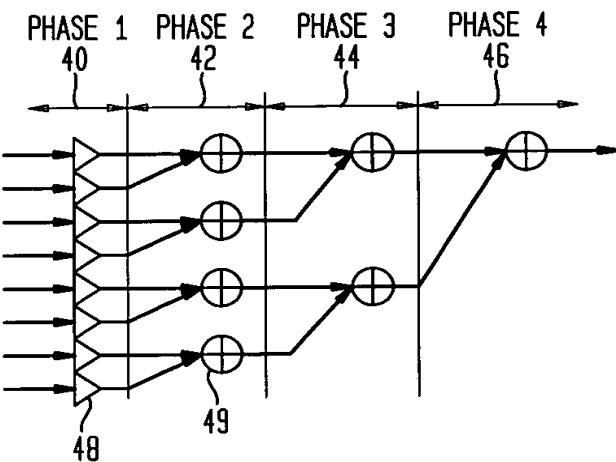
**FIG. 5A**  
JABER'S RADIX- $r$  DIF MODULE



**FIG. 5B**  
JABER'S RADIX- $r$  DIT MODULE



**FIG. 6A**  
RADIX-8 DIT FFT ENGINE



**FIG. 6B**  
RADIX-16 DIF FFT ENGINE

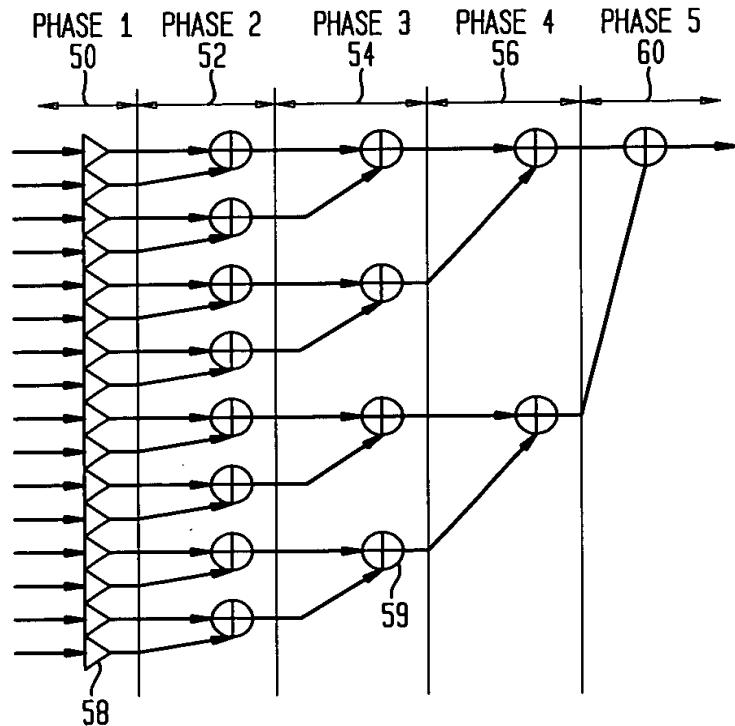


FIG. 7

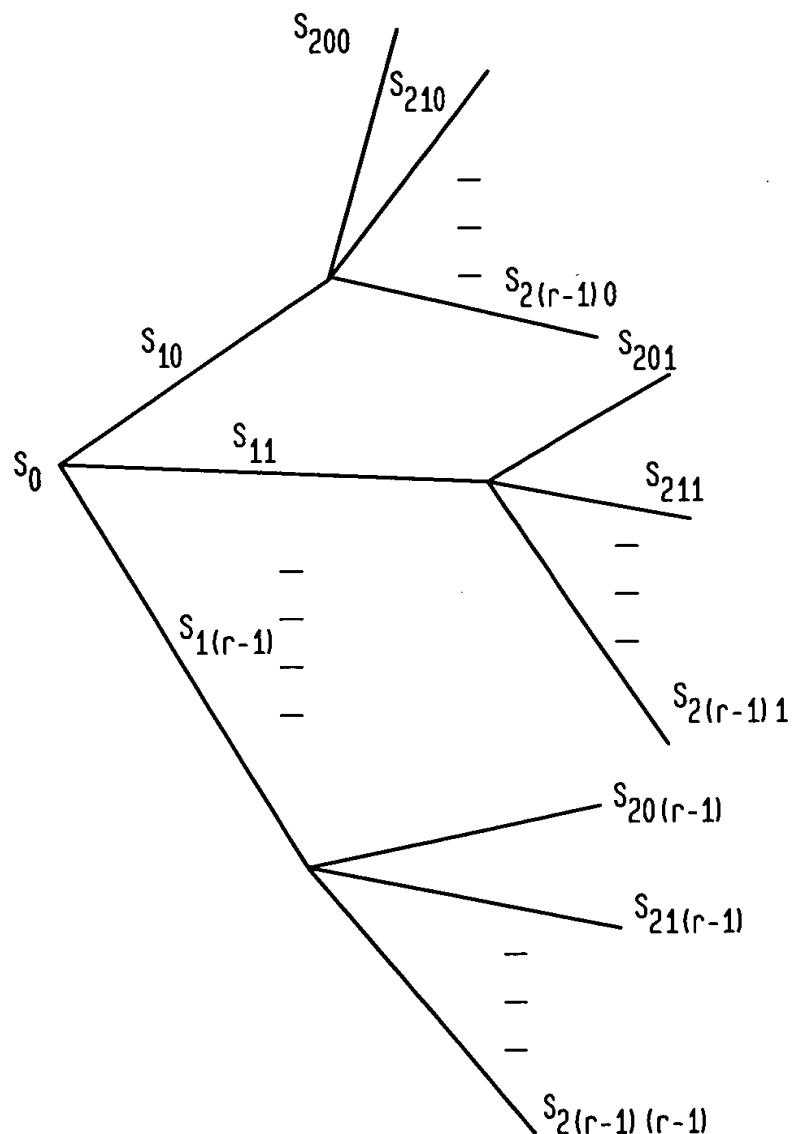


FIG. 8

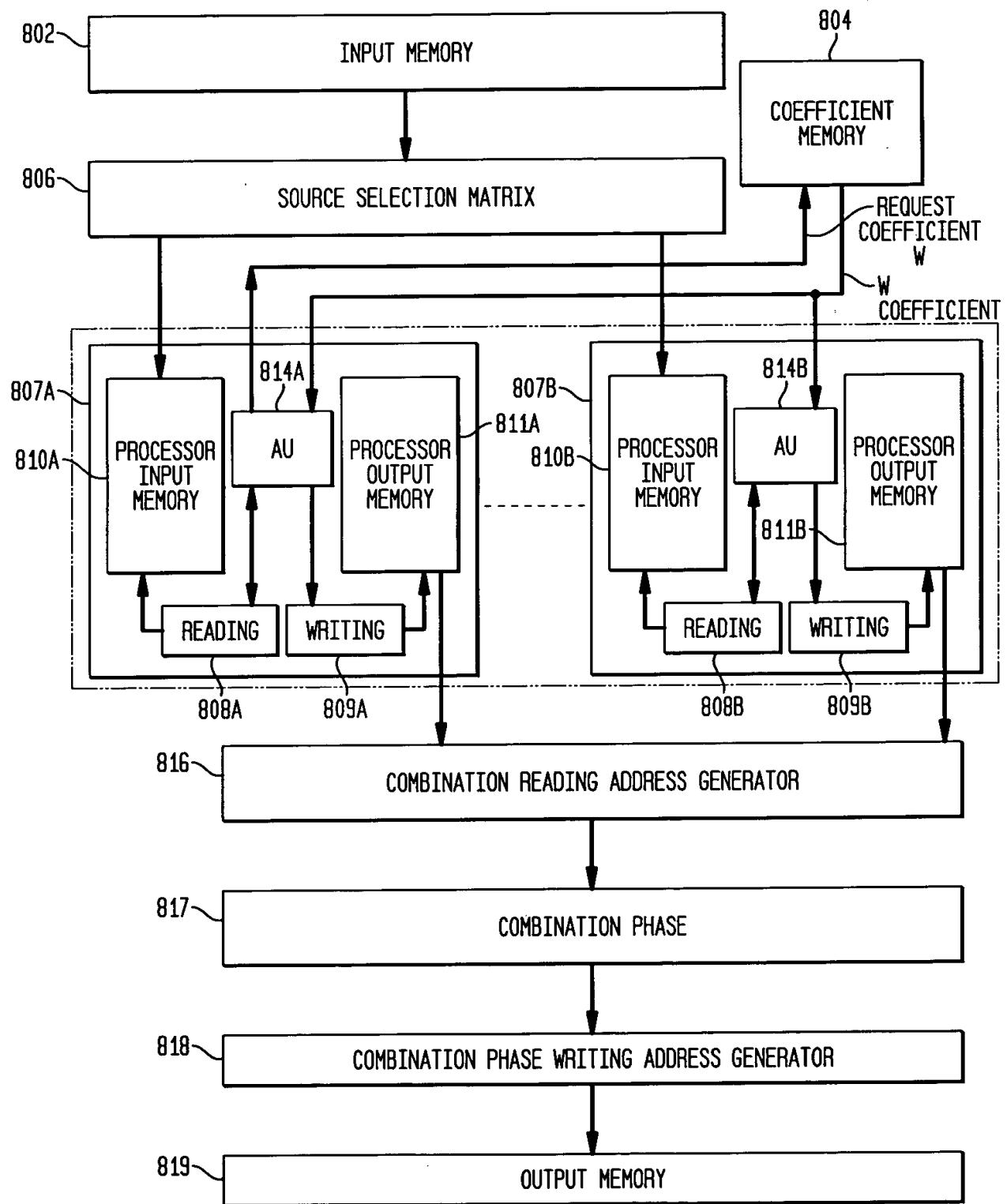
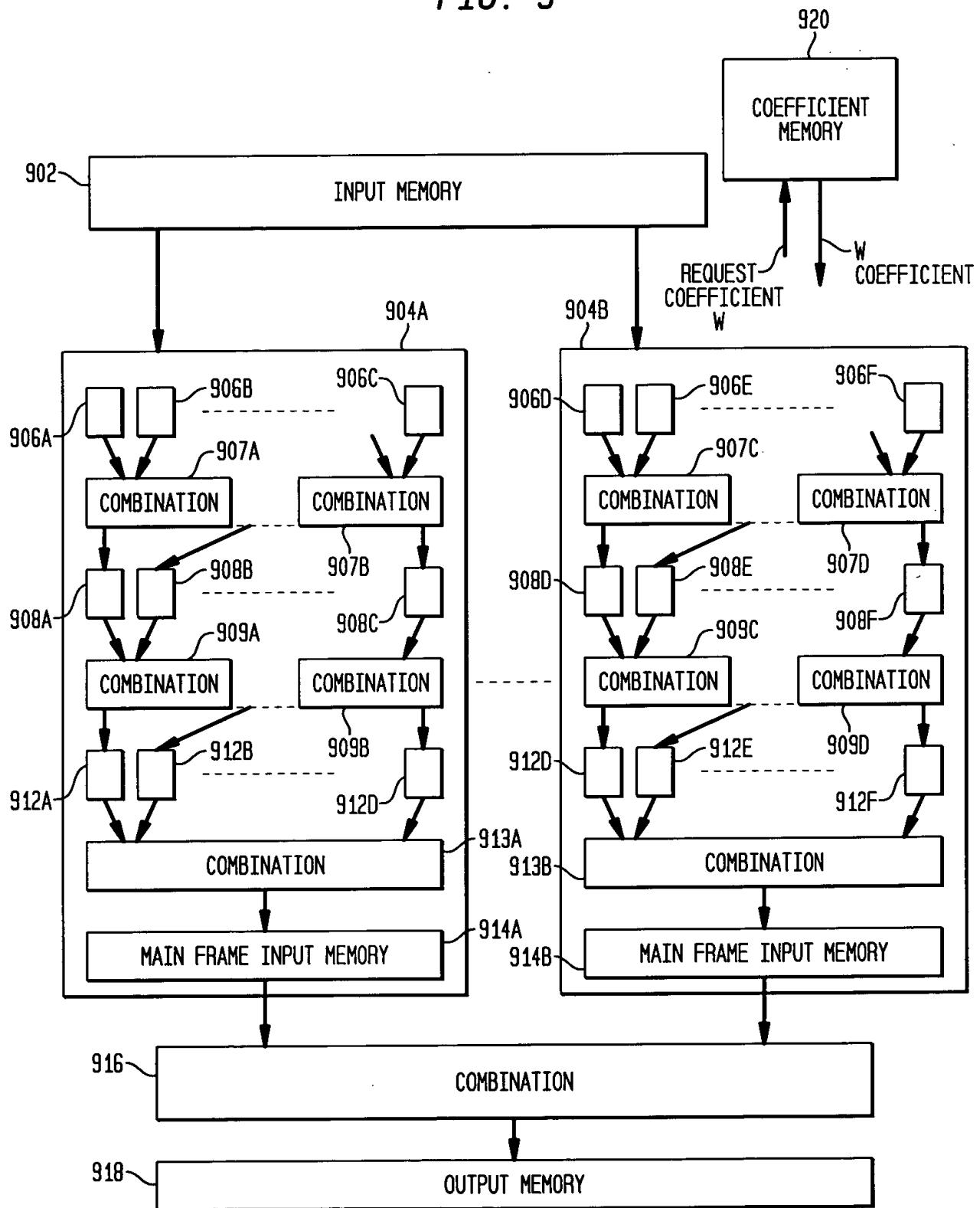
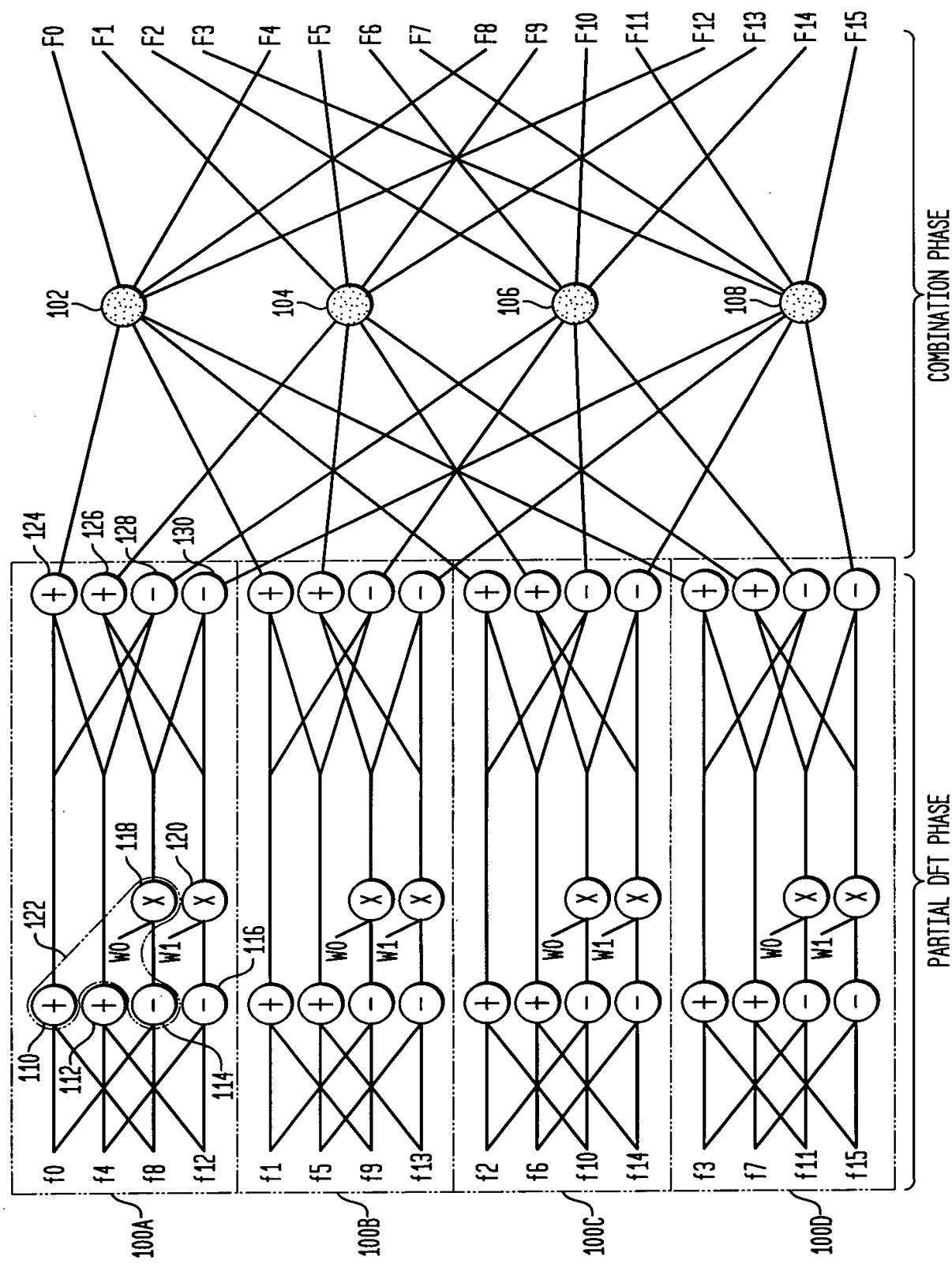


FIG. 9



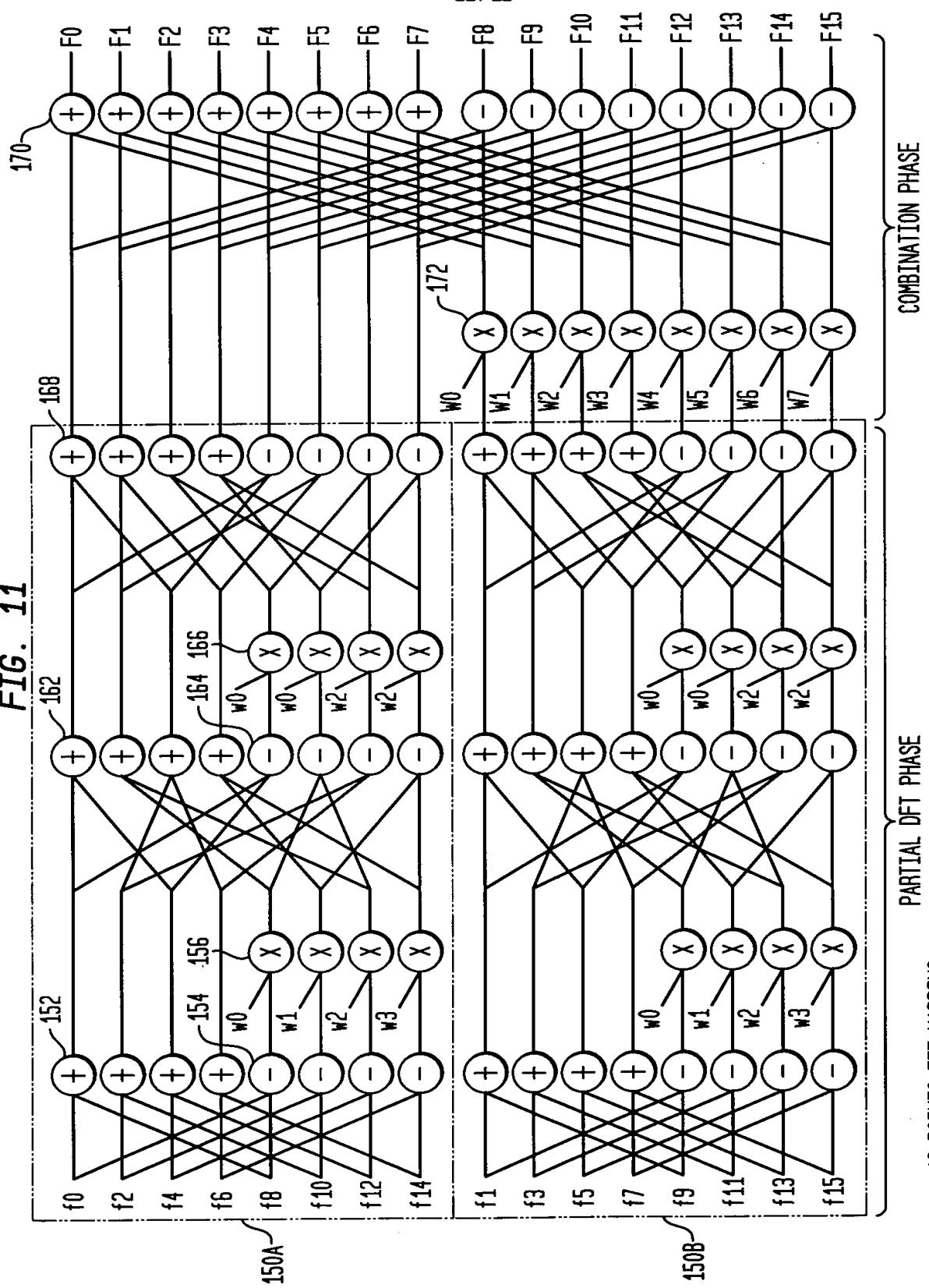
16 POINTS FFT RADIX 2 ON FOUR PARALLEL PROCESSORS WITH COMBINATION PHASE

FIG. 10



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FIG. 11



16 POINTS FFT MAPPING  
WITH COMBINATION PHASE